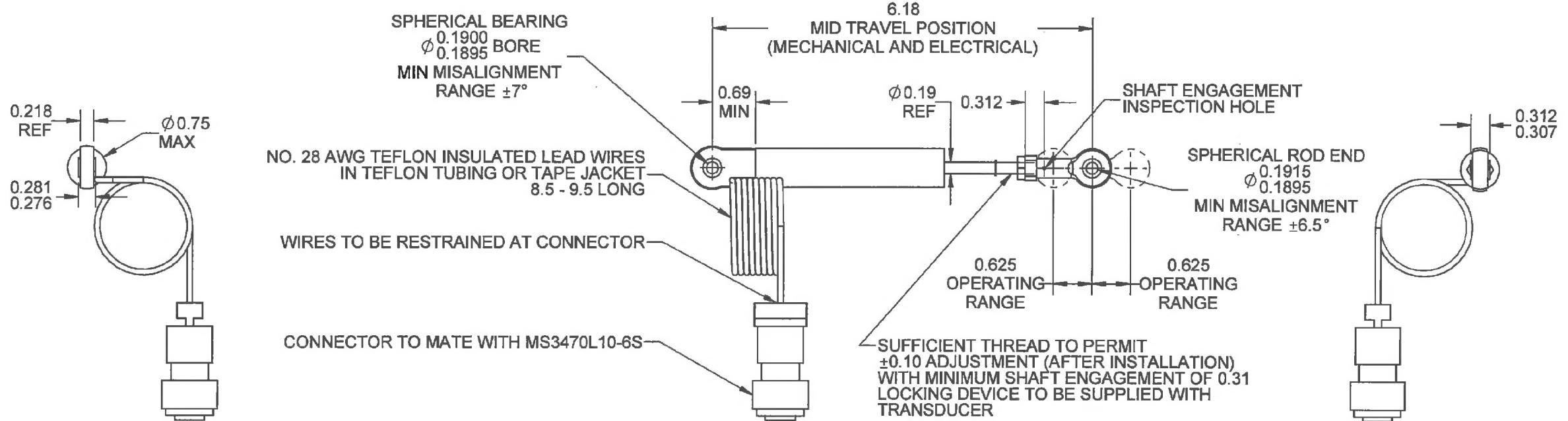


8 7 6 5 4 3 2 1

# SPECIFICATION CONTROL DRAWING



DART PART NUMBER	DESCRIPTION	VENDOR	VENDOR PART NUMBER	ALTERNATE VENDOR	ALTERNATE VENDOR PART NUMBER	WEIGHT
E4517-1	CONTROL MOTION TRANSDUCER	BELL HELICOPTER	412-074-101-101	DUNCAN ELECTRONICS	600-563	0.07

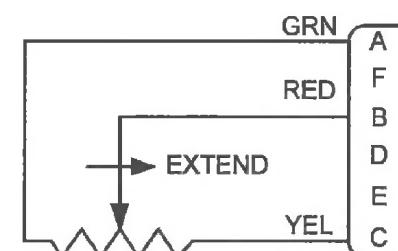
NOTES:  
 1) MATERIAL: N/A  
 2) FINISH: N/A  
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1  
 7) WEIGHT: SEE TABLE  
 8) THE UNIT SHALL MEET DESIGN AND ENVIRONMENTAL REQUIREMENTS OF MIL-E-5400 FOR CLIA EQUIPMENT EXCEPT TEMP RANGE IS -54°C TO +85°C.  
 9) PERFORMANCE REQUIREMENTS:

A. ELECTRICAL

1. TERMINAL RESISTANCE :  $5\text{ k}\Omega \pm 10\%$  AT  $25^\circ\text{C}$  AND 50% RELATIVE HUMIDITY. MAX.  $\pm 15\%$  OVER ENTIRE ENVIRONMENTAL RANGE.
2. INDEPENDENT LINEARITY:  $\pm .5\%$  OVER OPERATING RANGE. SEE FIGURE 1
3. RESOLUTION: ESSENTIALLY INFINITE
4. NOISE OUTPUT AT WIPER: 0.3 VOLTS RMS MAX. VELOCITY OF 3 IN/SEC WITH 20 VDC EXCITATION AND 50 K LOAD.
5. POWER RATING: 1/2 W/IN AT  $25^\circ\text{C}$   
1/10 W/IN AT  $85^\circ\text{C}$
6. ELECTRICAL TRAVEL: 1.50 MIN

B. MECHANICAL

1. STARTING FORCE: 16 OZ MAX
2. MECHANICAL TRAVEL: 1.50 MIN
3. SHAFT ROTATION: CONTINUOUS
4. LIFE TEST:  $.5 \times 10^6$  FULL SCALE CYCLES WITH  $30 \times 10^6$  DITHER CYCLES AT 11 Hz SUPERIMPOSED ON THE FULL SCALE CYCLES (2% OF FULL STROKE AMPLITUDE MIN) WITH A MAX DEVIATION OF 0.5% FROM ORIGINAL OUTPUT CURVE AT END OF TEST.



SCHEMATIC

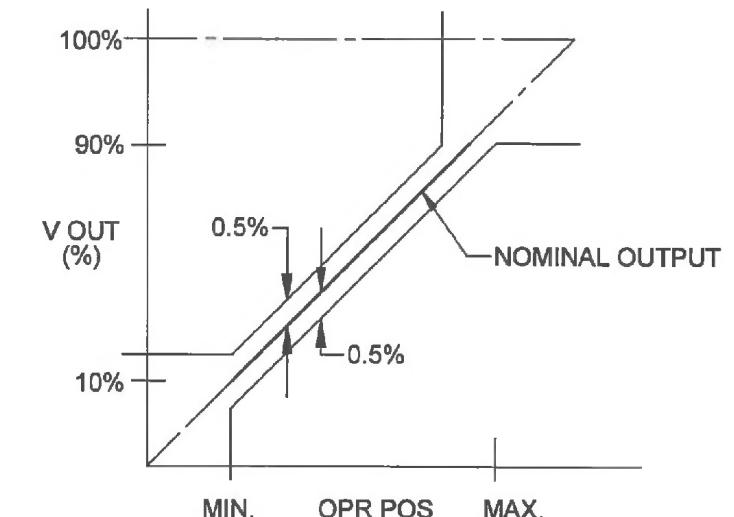


FIGURE 1

E4517-X LVDT, COLLECTIVE POSITION

A	NEW ISSUE	12.12.03
REV.	DESCRIPTION	BY DATE
DESIGN	<i>AB</i>	EAGLE COPTERS LTD
DRAWN	<i>AB</i>	CALGARY, ALBERTA, CANADA
CHECKED	<i>BB</i>	DRAWING NO.
MFG. APPR.	N/A	REV. A
APPROVED	<i>MM</i>	E4517
DE APPR.	<i>MM</i>	SHEET 1 OF 1
DATE	12.12.03	TITLE
		LVDT, CP
		SCALE
		NTS
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